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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,634	02/27/2004	Dean C. Thornton	82975/7948	5730

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EXAMINER

KOSOWSKI, ALEXANDER J

ART UNIT	PAPER NUMBER
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2125

DATE MAILED: 09/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/789,634	Applicant(s) THORNTON ET AL.	
	Examiner Alexander J. Kosowski	Art Unit 2125	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15, 35-52 and 67-73 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15, 35-52 and 67-73 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>1/24/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- 1) Claims 1-15, 35-52 and 67-73 are presented for examination in light of the response filed 7/7/06.

Claim Rejections - 35 USC § 102

- 2) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- 3) Claims 1-3, 12-15, 35, 41-44, 51-52, 67 and 72-73 are rejected under 35 U.S.C. 102(b) as being unpatentable by Holmes et al (U.S. PGPUB 2003/0016142).

Referring to claim 1, Holmes teaches an apparatus that may be utilized in an irrigation system (Paragraphs 0027 and 0046) comprising: a processor (Paragraph 0034); a sensor coupled to the processor and adapted to provide a sensor response (Paragraphs 0027 and 0037); and a communication circuit coupled to the processor (Paragraphs 0050-0051); wherein the processor is adapted to: cause the communication circuit to transmit a first signal in response to the sensor response, the first signal having a first signal strength (Paragraphs 0062-0066, whereby a first signal at an initially high power level may be transmitted); and cause the communication circuit to transmit a second signal having a second signal strength, wherein the second signal strength is less than the first signal strength (Paragraph 0066, whereby a second signal may be transmitted at a decremented power level until a reply message is not received).

Referring to claim 2, Holmes teaches that the communication circuit includes one of a transmitter and a transceiver (Paragraph 0050).

Referring to claim 3, Holmes teaches that the sensor is comprised of an electrical contact adapted to be actuated and wherein the sensor response is the actuation of the electrical contact (Paragraph 0046).

Referring to claim 12, Holmes teaches that the sensor is a water sensor (Paragraph 0027).

Referring to claim 13, Holmes teaches that the sensor is a temperature sensor (Paragraph 0027).

Referring to claim 14, Holmes teaches that the first apparatus has an identity, the first apparatus further comprising a memory coupled to the processor, said memory being adapted to store an identity code corresponding to the first apparatus identity, and wherein the first signal includes the identity code (Paragraph 0069, whereby a device ID is sent with messages).

Referring to claim 15, Holmes teaches that the second signal has an identity and wherein the second signal includes information corresponding to the identity (Paragraph 0069, whereby a device ID is sent with all messages).

Referring to claim 35, Holmes teaches a first apparatus for use with an irrigation system (Paragraphs 0027 and 0046) comprising: means for providing a first response as a function of an environmental condition (Paragraphs 0027 and 0037); means for transmitting a first signal having a first signal strength and a second signal having a second signal strength, wherein the second signal strength is less than the first signal strength (Paragraphs 0062-0066, whereby a first signal is transmitted at a higher power level and the second may be transmitted at a decremented power level); a processor coupled to the providing means and the transmitting means (Paragraph 0034); and a program logic executed by the processor, comprising: means for causing the transmitting means to transmit the first signal in response to the first response; and

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means for causing the transmitting means to transmit the second signal (Paragraphs 0034 and 0050, whereby a programmable processor is utilized).

Referring to claims 41-42, see rejection of claims 14-15 above.

Referring to claim 43, Holmes teaches a first apparatus for use with an irrigation system having an irrigation controller adapted to provide a control signal (Paragraphs 0027 and 0046), the first apparatus comprising: a processor coupled to the irrigation controller and adapted to process the control signal (Paragraph 0034); and a communication circuit coupled to the processor (Paragraphs 0050-0051); wherein the processor is adapted to: cause the communication circuit to transmit a first signal in response to the control signal, the first signal having a first signal strength; and cause the communication circuit to transmit a second signal having a second signal strength, wherein the second signal strength is less than the first signal strength (Paragraphs 0062-0066, whereby a first signal is transmitted at a higher power level and the second may be transmitted at a decremented power level).

Referring to claim 44, see rejection of claim 2 above.

Referring to claims 51-52, see rejection of claims 14-15 above.

Referring to claim 67, Holmes teaches a first apparatus for use with an irrigation system having an irrigation controller adapted to provide a control signal (Paragraphs 0027 and 0046), said first apparatus comprising: a processor coupled to the irrigation controller and adapted to process the control signal (Paragraph 0034); means for transmitting a first signal having a first signal strength and a second signal having a second signal strength, wherein the second signal strength is less than the first signal strength (Paragraphs 0062-0066, whereby a first signal is transmitted at a higher power level and the second may be transmitted at a decremented power

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level); wherein the processor is coupled to the transmitting means (Paragraphs 0050-0051); and a program logic executed by the processor, comprising: means for causing the transmitting means to transmit the first signal in response to the control signal; and means for causing the transmitting means to transmit the second signal (Paragraphs 0034 and 00 and 0050, whereby a programmable processor is utilized).

Referring to claims 72-73, see rejection of claims 14-15 above.

Claim Rejections - 35 USC § 103

4) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5) Claims 8-9, 38-39, 47-48 and 69-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holmes.

Referring to claims 8-9, Holmes teaches the above. In addition, Holmes teaches that signal levels may be decremented or raised between minimum and maximum levels (Paragraphs 0062-0066). However, Holmes does not explicitly teach that the second signal strength is specifically between 20% and 80% or 40% and 60% of the first signal strength.

Examiner notes that it would have been obvious to one skilled in the art at the time the invention was made to utilize a second signal strength of 20% to 80% or 40% to 60% of the first signal strength since this would account for varying distances and impedances in the transmission path and allow for a noticeable and useable variation in transmission power.

Referring to claims 38-39, 47-48, 69-70 see rejection of claims 8-9 above.

6) Claims 4-7 and 10-11, 36-37, 40, 45-46, 49-50, 68 and 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holmes, further in view of Lavoie (U.S. Pat 6,453,215).

Referring to claim 4, Holmes teaches the above. In addition, Holmes teaches that the sensor is comprised of an electrical contact adapted to be actuated and wherein the sensor response is the actuation of the electrical contact (Paragraph 0046). However, Holmes does not explicitly teach first apparatus further comprising a user input device for inputting a command, said input device being adapted to actuate the electrical contact.

Lavoie teaches an irrigation controller which utilizes a user operated remote control unit to initiate test the irrigation controllers and associated controlled valves (col. 9 lines 1-27 and col. 13 line 63 through col. 14 line 6).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to utilize a user input device for inputting a command, said input device being adapted to actuate the electrical contact since this would allow tests to be run to determine the status of remote irrigation controllers and valves (Lavoie, col. 9 lines 1-27).

Referring to claim 5, Holmes teaches the above. In addition, Holmes teaches that the electrical contact has a first position and a second position, wherein the electrical contact is moved from the first position to the second position when the electrical contact is actuated (Paragraph 0046, whereby on/off switches and analog sensors may comprise moveable electrical contacts). However, Holmes does not explicitly teach that the processor causes the communication circuit to transmit the second signal when the electrical contact is in the second position for a predetermined period of time.

Examiner notes that it would have been obvious to one skilled in the art at the time the invention was made to only send a signal when electrical contact is held for a period of time since sensors that initiate delayed signals are well known in the art and since Holmes teaches that any type of sensor may be utilized (Paragraph 0046).

Referring to claims 6-7, Holmes teaches the above. However, Holmes does not explicitly teach a user input device for inputting a command, said input device being coupled to the processor, wherein the second signal is transmitted in response to the command from the input device, nor that the user input device is one of a button, a touch screen, a voice-activated device, and a menu structure shown on a display panel that is navigated by a keypad.

Lavoie teaches an irrigation controller which utilizes a touch screen to program the controller and may also utilize a remote control unit to test the irrigation controllers and associated controlled valves (col. 9 lines 1-27, col. 11 lines 23-35 and col. 13 line 63 through col. 14 line 6).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to utilize a user input device for inputting commands coupled to a processor, transmit signals in response to commands, and to utilize a touch screen as an input device in the invention taught by Holmes above since this would allow tests to be run to determine the status of remote irrigation controllers and valves (Lavoie, col. 9 lines 1-27), and since the use of a user input device would allow a user to be guided through the programming process and provided with an indication of presently selected zones and programming functions (Lavoie, col. 4 lines 5-9).

Referring to claims 10-11, Holmes teaches the above. In addition, Holmes teaches that the first apparatus is for use with a second apparatus that is adapted to receive the first and

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second signals, the first apparatus able to receive verification from the second apparatus of receipt of the second signal by the second apparatus (Paragraph 0066, whereby a reply message is received from both signals that are sent out, and examiner interprets this as notification of the event). However, Holmes does not explicitly teach an indicator coupled to the processor to provide notification of this event, nor that the indicator includes an LED.

Lavoie teaches an irrigation controller that utilizes LED's to indicate the status of remote equipment that is responding to inquiries (col. 5 lines 20-41).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to utilize an LED indicator to provide notification of receipt of the second signal in the invention taught above since the use of LED indicators allows for status displays to a user in multiple colors (Lavoie, col. 5 lines 30-37) and since examiner notes that the use of LED status indicators is well known in the art.

Referring to claims 36-37, see rejection of claims 4-5 above.

Referring to claims 40, see rejection of claim 10 above.

Referring to claims 45-46, see rejection of claims 6-7 above.

Referring to claims 49-50, see rejection of claims 10-11 above.

Referring to claims 68, see rejection of claims 4-5 above.

Referring to claims 71, see rejection of claim 10 above.

Conclusion

7) The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Flanagan et al (U.S. Pat 7,009,522) – teaches the use of multiple levels of power transmission in response to sensor readings.

8) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander J Kosowski whose telephone number is 571-272-3744.

The examiner can normally be reached on Monday through Friday, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on 571-272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. In addition, the examiner's RightFAX number is 571-273-3744.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

Alexander J. Kosowski
Patent Examiner
Art Unit 2125

